

List of Contents

NUMBER 1

	i	Softstrip data strips containing the table of contents
J. L. Encarnação	1	Editor's Introduction
		<i>Technical Section</i>
Werner Purgathofer	3	Identification in a high-level graphics programming language
John R. Rankin	11	A geometric hidden-line processing algorithm
Gary D. Knott	21	Computing polygon fill-lines
Gerardo Leon Lastra, Gabriel Ruiz Huerta, and Julio S. Santana Sepulveda	27	The universal ruler for 2D drafting systems
S. Yuen and J. D. Taylor	33	Enhancements of small peaks using the moiré technique
K. Lam	35	Potential flow calculation by surface vorticity method and computer graphics
		<i>News & Views</i>
H. R. Weber	49	Section Editor's Introduction
H. R. Weber	51	ZGDV (Zentrum Für Graphische Datenverarbeitung) The Darmstadt Computer Graphics Center
		<i>Computer Graphics and Education</i>
Michel Roch and Jacques Weber	55	Computer graphics in chemical education and research
		<i>Graphics Art</i>
Pang Yun Jie, Yang Shu Xun, and Chi Yiu	63	Combining computer graphics with Chinese traditional painting
		<i>Announcement</i>
	69	Eurographics '87—Amsterdam
	I	Software survey section
		MacChoro Mapping Program
		GKS, The Graphical Kernel System
		GKS Level 2B Bindings
		DI-TEXTPRO
		METAFILE SYSTEM
		DI-3000
		GRAFMAKER
		GK-2000
		CONTOURING SYSTEM
		AddSys-3000
		PicSure Plus
		Enter/Act
		DI-3000 XPM

NUMBER 2

	i	Softstrip data strips containing the table of contents
		<i>In Memoriam</i>
J. L. Encarnação	71	Günter Enderle (1945–1987)
		<i>Computer Graphics in India</i>
S. P. Mudur	73	Guest Editor's Introduction
Shishir Pardikar, Mahesh Vaidya and S. S. S. P. Rao	75	GKS implementation: a case study
Prabhakar D. Mallya	79	Computational problems in the construction of plane curves
Sanjaya K. Saxena, Sanjiv Saxena and Rao V. S. Malladi	87	The hierarchical logic schematic capture
Nitin R. Patel, L. Mohan and S. Sudarshan	95	Statistical representation on maps—an interactive graphics approach
D. G. Sawkar, G. R. Shevare and S. P. Koruthu	101	Contour plotting for scattered data
B. Gurunathan and S. G. Dhande	105	Algorithms for development of certain classes of ruled surfaces
K. N. Ramachandran Nair and R. Sankar	113	An approach to geometric modeling of solids bounded by sculptured surfaces
		<i>Technical Section</i>
Eugene Fiume	121	Bit-mapped graphics: a semantics and theory
Ronald J. Leach	141	Evaluating the performance of a user interface
Jeffrey P. Mittelman	147	The ARF Workstation: a new application of human-computer interface principles
		<i>Eurographics '86 Award Papers</i>
Werner Purgathofer	157	A statistical method for adaptive stochastic sampling
Karen Singleton	163	An implementation of the GKS-3D/PHIGS viewing pipeline
Jürgen Stärk	185	The integrated display controller (IDC) for VLSI-design workstations
Charles D. Woodward	193	Cross-sectional design of <i>B</i> -spline surfaces
		<i>News and Views</i>
P. Wisskirchen	203	Computer graphics within the AGF

Clifford A. Pickover	217	<i>Graphics Art</i> Mathematics and beauty: time-discrete phase planes associated with the cyclic system, $\{\dot{x}(t) = -f(y(t)), \dot{y}(t) = f(x(t))\}$
	227	<i>Announcement</i> Eurographics '87—Amsterdam
		Software survey section
		FRONT END HANDPRINTS
		NUMBER 3
	i	Softstrip data strips containing the table of contents
Jerry Schneider	229	<i>Graphics in Transportation Planning and Engineering</i> Guest Editor's Introduction
Alain L. Kornhauser	231	Exploring transportation problems using interactive computer graphics
Michael A. P. Taylor	241	Applying interactive colour graphics in traffic planning
Robert Shieng-I Tung and Jerry Schneider	249	The investigation of land-use/transportation interrelationships: a CAD approach
John M. Ishimaru and Dale E. Calkins	255	Transportation interface facilities design using interactive high-level computer graphics
Wojciech Mokrzycki	269	<i>Technical Section</i> Peak and medium-global errors of discretization of algebraic curves on square grids
Giulio Casciola	275	An interactive, graphic system for the study of functions
Farzin Sobhanpanah and Ian O. Angell	281	On the construction and display of a polytopal mesh for the N -dimensional hypercube and $(N + 1)$ simplex
Nenad Marovac	289	Handling fonts in electronic publishing systems
K. Loganathan, N. V. Raman and A. Rajaraman	297	<i>Short Technical Notes/Technical Forum/Systems</i> Interactive graphics for guyed tower analysis
Kumar K. Tamma, William B. Squire and Brian L. Dowler	305	An entire real range plotting algorithm via computer graphics
Reinhard Fössmeier	309	<i>Graphics and Education</i> Animating matrix algorithms
Harold J. McWhinnie	315	<i>Graphics Art</i> The personal computer as an interactive technology for the artist (simulation vs. abstraction)

Announcements

- 321 Eleventh European Conference on Visual Perception
- 321 Symposium on Parallel Computations and Their Impact on Mechanics—ASME Winter Annual Meeting
- I Software survey section

NUMBER 4

- i Softstrip data strips containing the table of contents

Integration of Text and Graphics

- Angela Scheller** 323 Guest editor's introduction
- Ian R. Campbell-Grant and Peter J. Robinson** 325 An introduction to ISO DIS 8613, "Office Document Architecture," and its application to computer graphics
- Donald D. Chamberlin and Charles F. Goldfarb** 343 Graphic applications of the Standard Generalized Markup Language (SGML)
- W. D. Fellner and R. Posch** 359 Bildschirmtext—An open videotex network for text and graphic applications
- Wolfgang Appelt** 369 Existing systems for integrating text and graphics
- Wolfgang Gruber** 377 Structures of an integrated document workstation
- Laura Bacchelli Montefusco** 389 *Technical Section*
An interactive procedure for shape preserving cubic spline interpolation
- Michael J. Zyda, Allan R. Jones and Patrick G. Hogan** 393 Surface construction from planar contours
- Göran Einarsson and Göran Roth** 409 Data compression of digital color pictures
- Włodzimierz Kasprzak** 427 A linguistic approach to 3-D object recognition
- John R. Rankin** 445 *Short Technical Notes/Technical Forum/Systems*
A note on multi-polygon area filling
- D. P. Huijsmans, A. van Delft and C. A. C. Kuip** 449 WAALSURF: molecular graphics on a personal computer
- Mark S. Sobkow, Paul Pospisil and Yee-Hong Yang** 459 A fast two-dimensional line clipping algorithm via line encoding
- P. K. Robertson and J. F. O'Callaghan** 469 Colour graphics and three-dimensional scene synthesis in image display

Robert De Jongh, John Duke and Patrick Hillsdon	475	The use of interactive graphics in exploration and mine planning
		<i>News and Views</i>
Jauine Miranda i Canals	477	Cartographic Institut of Catalonia
Susan Stash	479	A multiple standards approach
		<i>Computer Graphics and Education</i>
Uday G. Gujar and Joseph W. P. So	483	A student oriented CAD system in APL
		<i>Graphics Art</i>
Clifford A. Pickover	499	Mathematics and beauty V: turbulent complex curls
	I	Volume 11 list of contents and author index
	XI	Software survey section SURFMODL